IN THE CLAIMS

1. (Currently Amended) An image processing apparatus, comprising:

a document reading unit configured to read a document at a constant speed and to generate image data comprising a digital signal;

a size detection unit configured to detect a size of said document read by said document reading unit, wherein the size detection unit is configured to detect the size of said document after said document is read by said document reading unit;

a storing unit configured to store the image data generated by said document reading unit in association with information about the detected size of said read document;

an enlargement/reduction specifying unit configured to specify an enlargement/reduction condition when said read document is to be output;

an enlargement/reduction factor calculating unit configured to calculate an enlargement/reduction factor based on the information about the size of said read document stored in said storing unit and the enlargement/reduction condition specified by said enlargement/reduction specifying unit; and

an enlargement/reduction unit configured to carry out enlargement/reduction of the image data stored in said storing unit based on the enlargement/reduction factor calculated by said enlargement/reduction factor calculating unit,

wherein said document reading unit ~~is configured to read~~ reads the document prior to specification of said enlargement/reduction condition.

2. (Previously Presented) The image processing apparatus according to claim 1, wherein said enlargement/reduction unit comprises:

a relocation data calculating unit configured to calculate relation data in a one-dimensional direction for a feeding direction and a scanning direction, respectively; and

an image rotating unit configured to generate image data corresponding to an image obtained by rotating an original image by 90 degrees.

3. (Previously Presented) The image processing apparatus according to claim 1, wherein said enlargement/reduction unit comprises:

a first relocation data calculating unit configured to calculate relocation data in a one-dimensional direction for a feeding direction; and

a second relocation data calculating unit configured to calculate relocation data in the one-dimensional direction for a scanning direction.

4. (Previously Presented) The image processing apparatus according to claim 1, wherein said enlargement/reduction unit is provided independently of said image processing unit, and relocation data are calculated at a same time in both a feeding direction and a scanning direction.

5. (Previously Presented) The image processing apparatus according to claim 1, wherein said enlargement/reduction unit comprises:

a reference data reading unit configured to read, from said storing unit, image data of a reference pixel for calculating relocation data in a plane area; and

a relocation data calculating unit configured to calculate relocation data in both a feeding direction and a scanning direction for the image data read from said reference data reading unit.

6. (Previously Presented) An image processing method, comprising:

a document reading step of reading a document at a constant speed and generating image data comprising a digital signal;

detecting a size of said read document, wherein the detecting step is performed after the document reading step;

a storing step of storing the image data generated at the document reading step in association with information about the size of said read document detected in the detecting step;

an enlargement/reduction specifying step of specifying an enlargement/reduction condition when said read document is to be output, said enlargement/reduction specifying step being performed after said document reading step;

an enlargement/reduction factor calculating step of calculating a enlargement/ reduction factor based on the information about the document size stored at the storing step and the enlargement/reduction condition specified at the enlargement/reduction specifying step;

an enlargement/reduction step of carrying out a enlargement/ reduction processing for the image data stored at the storing step based on the enlargement/reduction factor calculated at the enlargement/reduction factor calculating step;

an image processing step of carrying out an image processing for the image data subjected to the enlargement/reduction processing at the enlargement/reduction step; and

an output step of outputting, as a mirror image, the image data subjected to the image processing at the image processing step.

7. (Previously Presented) The image processing method according to claim 6, wherein the enlargement/reduction step comprises:

a first data transferring step of transferring original image data to a unit which calculates relocation data in a one-dimensional direction;

a first relocation data calculating step of calculating relocation data for the original image data transferred at the first data transferring step;

a second data transferring step of transferring the relocation data calculated at the first relocation data calculating step a unit which generates image data corresponding to an image rotated by 90 degrees;

an image rotating step of generating image data corresponding to the image rotated by 90 degrees with respect to an image of the relocation data transferred at the second data transferring step;

a third data transferring step of transferring the image data obtained at the image rotating step said unit which calculates relocation data in a one-dimensional direction; and

a second relocation data calculating step of calculating relocation data for the image data transferred at the third data transferring step.

8. (Previously Presented) The image processing method according to claim 6, wherein the enlargement/reduction step comprises:

a first data transferring step of transferring original image data to a first unit which calculates relocation data in one of a scanning direction and a feeding direction;

a first relocation data calculating step of calculating relocation data for the original image data transferred at the first data transferring step;

a second data transferring step of transferring the relocation data calculated at the first relocation data calculating step to a second unit which calculates relocation data in the other one of the scanning direction and the feeding direction; and

a second relocation data calculating step of calculating relocation data for the relocation data transferred at the second data transferring step.

9. (Original) The image processing method according to claim 6, wherein the enlargement/ reduction step is carried out by a unit which is different from the unit which executes the image processing step and relocation data are calculated at the same time in both a feeding direction and a scanning direction.

10. (Previously Presented) The image processing method according to claim 6, wherein the enlargement/reduction step comprises:

a reference data reading step of reading, at the storing step, image data of a reference pixel for calculating relocation data in a plane area;

a data transferring step of transferring the image data read at the reference data reading step to a unit which calculates relocation data in both a feeding direction and a scanning direction; and

a relocation data calculating step of calculating relocation data for the image data transferred at the data transferring step.

11. (Previously Presented) A computer readable medium for storing instructions, which when executed by a computer, causes the computer to perform:

a document reading step of reading a document at a constant speed and generating image data comprising a digital signal;

detecting a size of said read document, wherein the detecting step is performed after the document reading step;

a storing step of storing the image data generated at the document reading step in association with information about the size of said read document detected in the detecting step;

an enlargement/reduction specifying step of specifying an enlargement/reduction condition when said read document is to be output, said enlargement/reduction specifying step being performed after said document reading step;

an enlargement/reduction factor calculating step of calculating an enlargement/reduction factor based on the information about the document size stored at the storing step and the enlargement/reduction condition specified at the enlargement/reduction specifying step; and

an enlargement/reduction step of carrying out an enlargement/reduction processing for the image data stored at the storing step based on the enlargement/reduction factor calculated at the enlargement/reduction factor calculating step.

12. (Previously Presented) The image processing apparatus of Claim 1, wherein the document reading unit comprises a sheet-through document feeder.

13. (Previously Presented) An image processing apparatus, comprising:

a document reading unit configured to read a document at a constant speed and to generate image data comprising a digital signal;

a size detection unit configured to detect a size of said document read by said document reading unit, wherein the size detection unit is configured to detect the size of said document after said document is read by said document reading unit;

a storing unit configured to store the image data generated by said document reading unit;

an enlargement/reduction specifying unit configured to specify an enlargement/reduction condition when said read document is to be output;

an enlargement/reduction factor calculating unit configured to calculate an enlargement/reduction factor based on the information about the size of said read document stored in said storing unit and the enlargement/reduction condition specified by said enlargement/reduction specifying unit; and

an enlargement/reduction unit configured to carry out enlargement/reduction of the image data stored in said storing unit based on the enlargement/reduction factor calculated by said enlargement/reduction factor calculating unit,

wherein the detection unit is configured to detect the size after the image data generated by said document reading unit is stored in said storing unit.

14. (Previously Presented) An image processing method, comprising:

a document reading step of reading a document at a constant speed and generating image data comprising a digital signal;

detecting a size of said read document, wherein the detecting step is performed after the document reading step;

a storing step of storing the image data generated at the document reading step;

an enlargement/reduction specifying step of specifying an enlargement/reduction condition when said read document is to be output;

an enlargement/reduction factor calculating step of calculating a enlargement/ reduction factor based on the information about the document size stored at the storing step and the enlargement/reduction condition specified at the enlargement/reduction specifying step;

an enlargement/reduction step of carrying out a enlargement/ reduction processing for the image data stored at the storing step based on the enlargement/reduction factor calculated at the enlargement/reduction factor calculating step;

an image processing step of carrying out an image processing for the image data subjected to the enlargement/reduction processing at the enlargement/reduction step; and

an output step of outputting, as a mirror image, the image data subjected to the image processing at the image processing step,

wherein the detecting of the size is performed after the image storing step.